



OCCUPATIONAL INJURIES AND ILLNESSES IN MISSOURI IN 2002

MANUFACTURING INDUSTRY DIVISION

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U.S. Department of Labor,
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Manufacturing was the major industry division with the second highest total recordable nonfatal occupational injury and illness incidence rate in Missouri private industry in 2002. Manufacturing had the highest incidence rate in 2001. The incidence rate was 9.5 (per 100 full-time workers) in 2002 reduced from 10.1 in 2001, 11.0 in 2000, and 12.0 in 1999. The incidence rates of nonfatal occupational injuries and illnesses in manufacturing by case types are shown in Table 1.

- Manufacturing was the major industry division with the highest incidence rates of total cases with days away from work, job transfer, or restriction in 2002 with a rate of 5.3.
- Manufacturing was the major industry division with the highest incidence rate for cases with job transfer or restriction in 2002 at 3.4.
- Manufacturing had the second highest incidence rate for other recordable cases at 4.2.
- Manufacturing was the major industry division with the highest number of total recordable nonfatal occupational injury and illness cases with 32,700. This accounted for 29.0 percent of the total number of recordable injury and illness cases in 2002 in Missouri private industry.

Table 1 shows the incidence rates of nonfatal occupational injuries and illnesses by industry for Missouri private industry and manufacturing industries in 2002. Industries within the manufacturing industry division are listed by 2, 3, and 4-digit Standard Industrial Classification (SIC) codes. The industries are separated into durable goods manufacturing and nondurable goods manufacturing.

- Motor vehicles and car bodies (SIC 3711) was the industry with the highest incidence rate of total recordable cases of nonfatal occupational injuries and illnesses in manufacturing in 2002 at 29.0 (per 100 full-time workers). This rate was reduced from 39.3 in 2001.
- Motor vehicles and equipment (SIC 371) had the second highest total recordable nonfatal occupational injury and illness incidence rate at 23.2. This rate was reduced from 26.8 in 2001.
- Poultry slaughtering and processing (SIC 2015) was the industry with the third highest total recordable nonfatal occupational injury and illness incidence rate at 20.0. This was reduced from 23.9 in 2001.
- The industry with the highest incidence rate for total cases with days away from work, job transfer, or restriction for manufacturing in 2002 was motor vehicles and car bodies with an incidence rate of 17.0. Poultry slaughtering and processing had the second highest incidence rate for total cases with days away from work, job transfer, or restriction at 13.8. Motor vehicles and equipment had the third highest incidence rate for total cases with days away from work, job transfer, or restriction at 12.5.
- Concrete, gypsum, and plaster products (SIC 327) was the manufacturing industry with the highest incidence rate in 2002 for cases with days away from work at 4.3. Primary metal industries (SIC 33) had the second highest incidence rate for cases with days away from work at 3.5. Stone, clay, and glass products (SIC 32) was the industry with the third highest incidence rate for cases with days away from work at 3.4.
- Motor vehicles and car bodies was the manufacturing industry with the highest incidence rate for cases with job transfer or restriction in 2002 at 13.7. Poultry slaughtering and processing had the second highest incidence rate for cases with job transfer or restriction at 12.6. Motor vehicles and equipment had the third highest incidence rate for cases with job transfer or restriction at 9.6.
- Motor vehicles and car bodies had the highest incidence rate of nonfatal occupational injuries and illnesses for other recordable cases in manufacturing in 2002 at 12.0. Motor vehicles and equipment had the second highest incidence rate for other recordable cases at 10.6 and motor vehicle parts and accessories (SIC 3714) had the third highest rate at 8.8.

Manufacturing was the major industry division with the highest incidence rate (160.4 per 10,000 full-time workers) of total cases of nonfatal occupational illnesses in 2002 in Missouri private industry. The rate was reduced from 203.5 in 2001. The incidence rates of nonfatal occupational illnesses by selected industries and category of illness for Missouri private industry in 2002 are shown in Table 2.

- Manufacturing was the major industry division with the most total illness cases in 2002 in Missouri private industry. 5,500 of the 9,200 nonfatal occupational illness cases in Missouri private industry in 2002 were in the manufacturing industry.
- Transportation equipment (SIC 37) was the selected manufacturing industry with the highest total case

incidence rate at 529.7. This was a 20.3 percent reduction from the 2001 total nonfatal occupational illness case incidence rate of 664.8.

- Food and kindred products (SIC 20) had the second highest total case incidence rate in 2002 at 220.2. This was a 19.3 percent reduction from the 2001 rate of 273.0 for total nonfatal occupational illness cases.
- Primary metal industries (SIC 33) had the highest incidence rate for skin diseases or disorders in manufacturing in 2002 at 44.3. Transportation equipment had the second highest incidence rate for skin diseases or disorders in 2002 with a rate of 24.7.
- Transportation equipment was the selected manufacturing industry with the highest incidence rate for respiratory conditions in 2002 with a rate of 11.1. Primary metal industries had the second highest incidence rate for respiratory conditions at 4.7.
- Chemicals and allied products (SIC 28) was the manufacturing industry with the highest incidence rate (12.2) for poisonings in 2002. Transportation equipment had the second highest incidence rate (7.5) for poisonings.
- The selected manufacturing industry with the highest incidence rate for all other illnesses in 2002 was transportation equipment with an incidence rate of 486.3. Food and kindred products was the selected industry with the second highest incidence rate for all other illnesses at 208.9.

The number of nonfatal occupational injuries and illnesses involving days away from work by selected worker and case characteristics and Manufacturing industry division for Missouri private industry are shown in Table 3.

- Most (71.4%) of the injured or ill workers in the manufacturing industry division in 2002 with days away from work were men.
- The age of most (32.8%) of the workers with occupational injuries and illnesses involving days away from work in the manufacturing industry division in 2002 was 35 to 44 years.
- Operators, fabricators, and laborers was the occupational group with the most nonfatal occupational injuries and illnesses involving days away from work in the manufacturing industry division in 2002 accounting for 75.1%.
- The majority (42.9%) of the injuries and illnesses involving days away from work in the manufacturing industry division in 2002 involved workers who had a length of service with their employer of more than five years.
- The race or ethnic origin of most (68.0%) of the injured or ill workers in manufacturing in 2002 was White, non-Hispanic.

Table 4 shows the incidence rates of nonfatal occupational injuries and illnesses involving days away from work for the top characteristics in the manufacturing industry division in Missouri private industry in 2002.

- Sprains, strains was the nature of injury, illness with the highest incidence rates in the manufacturing industry division in 2002. Sprains, strains was the nature of injury or illness in 41.0% of all injury or illness cases in the manufacturing industry division in 2002.
- Upper extremities was the part of body affected with the highest incidence rates in the manufacturing industry division in 2002. Upper extremities was the part of body affected in 36.4% of the injury and illness cases in the manufacturing industry division in 2002.
- Worker motion or position was the source of injury, illness with the highest incidence rates in the manufacturing industry division in 2002. Worker motion or position was the source of injury, illness in 22.3% of the injury and illness cases in the manufacturing industry division in 2002.
- Contact with object, equipment was the event or exposure with the highest incidence rates in the manufacturing industry division in 2002. Contact with objects and equipment was the event or exposure in 30.1% of the injury and illness cases in the manufacturing industry division in 2002.

Table 1. Incidence rates¹ of nonfatal occupational injuries and illnesses by industry and case types, 2002

Missouri

Industry ²	SIC code ³	Total recordable cases	Cases with days away from work, job transfer, or restriction			Other recordable cases
			Total	Cases with days away from work ⁴	Cases with job transfer or restriction	
Private industry⁵		6.0	3.0	1.4	1.6	3.0
Manufacturing		9.5	5.3	1.9	3.4	4.2
Durable goods		11.3	5.9	2.3	3.7	5.3
Lumber and wood products	24	9.8	4.5	2.9	1.6	5.3
Furniture and fixtures	25	11.4	6.9	2.8	4.1	4.6
Household furniture	251	12.1	7.3	2.7	4.6	4.9
Stone, clay, and glass products	32	11.6	6.2	3.4	2.7	5.4
Concrete, gypsum, and plaster products	327	12.0	6.3	4.3	2.0	5.7
Primary metal industries	33	12.0	8.0	3.5	4.5	4.1
Fabricated metal products	34	7.4	3.9	1.8	2.1	3.5
Fabricated structural metal products	344	7.6	4.6	2.7	1.9	3.0
Industrial machinery and equipment	35	10.3	5.0	2.3	2.7	5.3
Metalworking machinery	354	5.9	3.3	1.2	2.1	2.7
Refrigeration and service machinery	358	13.5	6.0	2.0	4.0	7.5
Refrigeration and heating equipment	3585	14.6	6.1	2.2	4.0	8.4
Industrial machinery, n.e.c.	359	6.5	3.4	1.9	1.5	3.1
Electronic and other electric equipment	36	7.6	3.9	1.6	2.3	3.6
Electrical industrial apparatus	362	9.4	5.2	2.0	3.2	4.2
Motors and generators	3621	10.0	5.5	2.1	3.4	4.4
Electric lighting and wiring equipment	364	8.2	4.7	1.2	3.5	3.5
Miscellaneous electrical equipment and supplies	369	7.0	4.0	2.4	1.6	3.0
Transportation equipment	37	17.1	9.0	2.2	6.8	8.0
Motor vehicles and equipment	371	23.2	12.5	2.9	9.6	10.6
Motor vehicles and car bodies	3711	29.0	17.0	3.3	13.7	12.0
Motor vehicle parts and accessories	3714	15.0	6.2	2.2	4.0	8.8
Miscellaneous manufacturing industries	39	12.2	6.4	2.5	3.9	5.9
Nondurable goods		7.1	4.3	1.4	3.0	2.7
Food and kindred products	20	9.8	6.0	1.4	4.5	3.9
Meat products	201	15.7	10.6	1.3	9.3	5.1
Poultry slaughtering and processing	2015	20.0	13.8	1.2	12.6	6.3
Dairy products	202	5.8	3.5	0.9	2.6	2.3
Grain mill products	204	10.3	4.4	2.2	2.2	5.9
Bakery products	205	5.8	3.9	0.5	3.4	1.9
Bread, cake, and related products	2051	6.2	4.2	0.5	3.7	2.0
Apparel and other textile products	23	5.7	3.4	1.0	2.4	2.3
Paper and allied products	26	6.1	3.5	1.1	2.4	2.6
Printing and publishing	27	4.3	2.2	1.2	1.0	2.2
Newspapers	271	4.4	2.2	1.0	1.2	2.2
Commercial printing	275	6.2	3.2	1.7	1.5	3.0
Chemicals and allied products	28	3.9	2.2	0.7	1.5	1.7
Drugs	283	3.4	1.8	0.4	1.4	1.6
Rubber and miscellaneous plastics products	30	10.2	7.7	2.6	5.1	2.5
Leather and leather products	31	8.2	5.6	2.1	3.5	2.6

¹ Incidence rates represent the number of injuries and illnesses per 100 full-time workers and were calculated as: $(N/EH) \times 200,000$ where
N = number of injuries and illnesses
EH = total hours worked by all employees during the calendar year
200,000 = base for 100 equivalent full-time workers (working 40 hours per week, 50 weeks per year).

² Totals include data for industries not shown separately.

³ *Standard Industrial Classification Manual*, 1987 Edition.

⁴ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

⁵ Excludes farms with fewer than 11 employees.

NOTE: Because of rounding, components may not add to totals.
n.e.c. = not elsewhere classified.
-- Indicates data not available.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses, in cooperation with participating State agencies.

Table 2. Incidence rates of nonfatal occupational illnesses by selected industries and category of illness, 2002

Missouri

Industry ¹	SIC code ²	Incidence rates per 10,000 full-time workers ³				
		Total cases	Skin diseases or disorders	Respiratory conditions	Poisonings	All other illnesses
Private industry⁴		49.2	6.6	3.3	0.5	38.8
Manufacturing		160.4	11.2	3.3	2.0	143.9
Durable good		192.3	14.6	4.5	1.9	171.4
Lumber and wood products	24	80.4	(⁵)	(⁵)	(⁵)	80.4
Furniture and fixtures	25	140.7	6.7	1.5	(⁵)	132.4
Stone, clay, and glass products	32	83.7	21.2	(⁵)	(⁵)	62.5
Primary metal industries	33	105.6	44.3	4.7	(⁵)	56.6
Fabricated metal products	34	36.7	0.3	3.7	(⁵)	33.1
Industrial machinery and equipment	35	90.5	8.2	4.2	(⁵)	78.0
Electronic and other electric equipment	36	97.4	8.5	0.4	0.4	88.1
Transportation equipment	37	529.7	24.7	11.1	7.5	486.3
Miscellaneous manufacturing industries	39	84.9	24.0	(⁵)	(⁵)	62.2
Nondurable goods		118.6	6.8	1.7	2.1	107.9
Food and kindred products	20	220.2	8.0	3.2	(⁵)	208.9
Apparel and other textile products	23	160.1	4.7	(⁵)	(⁵)	155.5
Paper and allied products	26	33.6	2.6	(⁵)	(⁵)	31.0
Printing and publishing	27	56.9	0.6	0.6	0.9	54.5
Chemicals and allied products	28	66.3	14.8	1.3	12.2	37.5
Rubber and miscellaneous plastics products	30	77.2	6.8	3.2	(⁵)	67.2
Leather and leather products	31	67.5	21.1	(⁵)	(⁵)	46.4

¹ Totals include data for industries not shown separately.

² *Standard Industrial Classification Manual*, 1987 Edition.

³ Incidence rates represent the number of illnesses per 10,000 full-time workers and were calculated as: (N/EH) x 20,000,000 where
N = number of illnesses
EH = total hours worked by all employees during the calendar year
20,000,000 = base for 10,000 equivalent full-time workers (working 40 hours per week, 50 weeks per year).

⁴ Excludes farms with fewer than 11 employees.

⁵ Incidence rate less than 0.05.

NOTE: Because of rounding, components may not add to totals.

n.e.c. = not elsewhere classified.

-- Indicates data not available.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses, in cooperation with participating State agencies.

Table 3. Number of nonfatal occupational injuries and illnesses involving days away from work¹ by selected worker and case characteristics and major industry division, Missouri, private industry, 2002

Characteristic	Private industry ^{2,3,4}	Manufacturing
Total:	26,802	6,462
Sex:		
Men	17,192	4,613
Women	9,530	1,849
Age:		
Under 14	--	--
14 to 15	--	--
16 to 19	677	120
20 to 24	2,530	322
25 to 34	6,287	1,453
35 to 44	8,317	2,121
45 to 54	5,891	1,571
55 to 64	2,562	824
65 and over	537	51
Occupation:		
Managerial and professional	1,248	53
Technical, sales, and administrative support	3,972	434
Service	5,146	119
Farming, forestry, and fishing	694	9
Precision production, craft, and repair	4,938	992
Operators, fabricators, and laborers	10,801	4,855
Length of service with employer:		
Less than 3 months	3,460	749
3 months to 11 months	5,754	899
1 year to 5 years	9,937	2,043
More than 5 years	7,566	2,770
Not reported	85	--
Race or ethnic origin:		
White, non-Hispanic	17,616	4,397
Black, non-Hispanic	1,704	265
Hispanic	422	203
Asian or Pacific Islander	122	43
American Indian or Alaskan Native	97	43
Not reported	6,840	1,510

¹ Days away from work include those that result in days away from work with or without job transfer or restriction.

² Excludes farms with fewer than 11 employees.

³ Data for Mining (Division B in the Standard Industrial Classification Manual, 1987 edition) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and nonmetal mining industries. These data do not reflect the changes OSHA made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable with estimates for other industries.

⁴ Data for employers in railroad transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes OSHA made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable with estimates for other industries.

NOTE: Because of rounding and data exclusion of nonclassifiable responses, data may not sum to the totals. Dashes indicate data that do not meet publication guidelines. The scientifically selected probability sample used was one of many possible samples, each of which could have produced different estimates. A measure of sampling variability for each estimate is available upon request.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

Table 4. Incidence rates¹ of nonfatal occupational injuries and illnesses involving days away from work² by selected worker and case characteristics and major industry division, Missouri, private industry, 2002

Characteristic	Private industry ^{3,4,5}	Manufacturing
Total:	142.8	186.9
Nature of injury, illness:		
Springs, strains	67.2	76.7
Fractures	11.3	13.3
Cuts, lacerations, punctures	10.4	22.7
Bruises, contusions	14.9	12.8
Carpal tunnel syndrome	5.3	13.7
All other	17.4	29.2
Part of body affected:		
Trunk	47.8	55.1
Back	28.6	26.4
Upper extremities	36.1	67.9
Finger	11.5	23.3
Wrist	10.6	23.4
Lower extremities	32.9	33.4
Source of injury, illness:		
Containers	18.1	20.9
Machinery	8.7	21.4
Parts and materials	15.9	33.0
Worker motion or position	23.3	41.6
Floor, ground surfaces	27.4	23.5
All other	18.1	20.2
Event or exposure:		
Contact with object, equipment	33.3	56.2
Struck by object	16.3	22.2
Overexertion	37.2	45.2
Overexertion in lifting	21.1	20.6
Repetitive motion	8.6	24.2

¹ Incidence rates represent the number of injuries and illnesses per 10,000 full-time workers and were calculated as: $(N/EH) \times 20,000,000$ where
 N = number of injuries and illnesses
 EH = total hours worked by all employees during the calendar year 20,000,000 = base for 10,000 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

² Days away from work include those that result in days away from work with or without job transfer or restriction.

³ Excludes farms with fewer than 11 employees.

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nonmetal mining industries. These data do not reflect the changes OSHA made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁵ Data for employers in railroad transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation. These data do not reflect the changes OSHA made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable with estimates for other industries.

NOTE: Dashes indicate data that do not meet publication guidelines or data for incidence rates less than .05 per 10,000 full-time workers. The scientifically selected probability sample used in each year was one of many possible samples, each of which could have produced different estimates. A measure of sampling variability for each estimate is available upon request.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.